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Dr. Donald W. Grace  
Procter and Gamble Co.  
Ivorydale Tech. Center  
Cincinnati 17, Ohio

Grace:

You might be pleased to know that we generated all the triangle-free, Hamiltonian undecahedra and the list of these coincides with yours. (It is also certain that every polyhedron with 12 or fewer faces is Hamiltonian; the smallest known non-Hamiltonian has 20 faces).

The generator would take about 2 hours of 7090 time to pull out the entire list; isomorph-checking via the HC's would come to another hour. To do the whole set of dodecahedra would take less than 24 hours of 7090 time by this route. Actually the generator would run just as well on the LINC. But I doubt we will go into this verification; I have another angle that might be much more expeditious. This would follow your own reasoning.

Sincerely yours,

Joshua Lederberg,  
Professor of Genetics

JL:eif

D.W.

GRACE